

SOME BIRDS ALONG THE TRAILS OF GLACIER NATIONAL PARK.

BY P. E. KRETZMANN.

Every one of our national parks is, by virtue of its name, also a refuge for the wild life of our country. And therefore, our parks are becoming places, not only for recreation and pleasure, where the stagnant air of smoky cities is replaced by the ozonized odor of pines and illimitable mountain reaches, but also for the most delightful study, under conditions which are natural and therefore approaching the ideal. The geologist roams over the peaks and the botanist searches the hills and valleys alike. But the one that makes use of all these delights and finds friends wherever he goes, is the zoölogist, and especially the bird lover.

The interest of bird study in Glacier Park is greatly enhanced by the great diversity of physiographic and climatic conditions. The difference in elevation is remarkable, that of Belton, in the southwest corner, being scarcely more than 3000 feet, while that of Mt. Cleveland, in the north-central section, is more than 10,000 feet. There are beautiful wooded lakes at low altitudes, as Lake McDonald and Lake St. Marys, but some of them are set high up amidst the peaks of the divide, as Iceberg Lake and Upper Two Medicine Lake. In the McDonald country and on the slopes of the eastern mountains there are dense forests. But then again the naturalist finds extensive mountain meadows, gay with thousands of brightly-colored flowers, with a luscious carpet of thick grass. At times, creeks and brooks and streams follow in uninterrupted succession, and then again, the path leads for miles along dry mountain sides, with never a trace of water. A large section of the Park lies in the Alpine life zone, where snow storms may be expected any day in the year. This is especially evident when one stands on Mt. Jackson, on the heights of Swift Current Pass or even on the Granite Park Plateau, and sees the endless succession of peaks as far as the eye will reach. The Hudsonian zone is marked plainly on the northern and northwestern side of the

mountains, the naked granite rocks standing out in bold relief above the scanty coniferous vegetation. The Canadian zone occupies almost the entire wooded section of the Park or as much area as all the other zones together. It is not so broad on the eastern slope as on the western side except in the Cut Bank region and along St. Marys Lake. The Transition zone is found at the mouth of almost all the canyons and in the broader valleys. And the Upper Sonoran zone is represented by some patches of prairie near Glacier Park station and in the Swift Current region, although the meadows at the foot of St. Marys Lake also show the characteristics of this zone.

It is evident, from this description, that the bird life of Glacier Park is most interesting and diversified. In a few hours, the hiker may leave the haunts of the Black-headed Grosbeak and of the Western Chipping Sparrow far behind him and find himself in a violent snowstorm, with Gray-capped Rosy Finches enjoying the weather in exuberant exultation. Or he may leave the Pine Siskins of the heights, watch the antics of the Water Ouzel below some waterfall, admire the rich plumage of the Long-tailed Chat in some wooded valley or the proud sailing of the Whistling Swan on some hidden lake, and that same evening see the Western Goldfinch flit along the shrubs of the Flathead River. Only he must remember one thing, namely, that the birds of the Park are still shy, especially in the presence of many people. The more one observes the quiet which the solemn hush of God's great out-of-doors seems to demand, the more opportunity he will have of becoming acquainted with the feathered friends of the mountains and canyons.

The following is a list of birds noted along the trails of Glacier Park in the course of two walking trips, the latter half of July, 1915, and the first half of August, 1917:

132. *Anas platyrhynchos*—Mallard. St. Marys Lake. August 9 and 10, 1917.

141. *Querquedula cyanoptera*—Cinnamon Teal. Foot of St. Marys Lake. August 10, 1917.

147. *Marila valisineria*—Canvasback. Swiftcurrent Lakes. August 13, 1917.
153. *Charitonnetta albeola*—Bufflehead. Lake in Cutbank Valley. July 19, 1915.
180. *Olor columbianus*—Whistling Swan. Two Medicine Lake. August 7, 1917.
194. *Ardea herodias herodias*—Great Blue Heron. Foot of St. Marys Lake. August 10, 1917.
242. *Pisobia minutilla*—Least Sandpiper. Near Lower Two Medicine Lake. July 9, 1915.
- 279b. *Dendragapus obscurus richardsoni*—Richardson's Grouse. Dry Fork Valley, foot of Rising Wolf Mountain. August 8, 1917.
304. *Lagopus leucurus leucurus*—White-tailed Ptarmigan. Below Cutbank Pass. August 8, 1917.
- 337b. *Buteo borealis calurus*—Western Redtail. Above Sun Camp. August 10, 1917.
- 352a. *Haliaeetus leucocephalus alascanus*—Northern Bald Eagle. Above Grinnell Glacier. August 13, 1917.
- 360a. *Falco sparverius phalana*—Desert Sparrow Hawk. Below Squaw Mountain. July 19, 1915; in Granite Park, August 14, 1917.
- 393e. *Dryobates villosus monticola*—Rocky Mountain Hairy Woodpecker. Side of Mount Henry. July 19, 1915.
- 402a. *Sphyrapicus varius nuchalis*—Red-naped Sapsucker. North of St. Marys Lake. August 10, 1917.
457. *Sayornis sayus*—Say's Phoebe. Below Squaw Mountain. July 19, 1915.
467. *Empidonax minimus*—Least Flycatcher. Lower Dry Fork Creek. August 8, 1917.
475. *Pica pica hudsonia*—Magpie. Prairie east of White Calf Mountain. August 9, 1917.
- 478c. *Cyanocitta stelleri annectens*—Black-headed Jay. St. Marys Lake. August 10, 1917.
- 484a. *Perisoreus canadensis capitalis*—Rocky Mountain Jay. Throughout higher parts of Park.
491. *Nucifraga columbiana*—Clarke's Nutcracker. Granite Park. August 14, 1917.
518. *Carpodacus cassinii*—Cassin's Purple Finch. Granite Park. August 14, 1917.
524. *Leucosticte tephrocotis tephrocotis*—Gray-crowned Rosy Finch. On Mt. Henry, in snowstorm. August 7, 1917.
- 529a. *Astragalinus tristis pallidus*—Pale Goldfinch. Foot of St. Marys Lake. August 10, 1917. Below Squaw Mt. July 19, 1915.
533. *Spinus pinus*—Pine Siskin. Granite Park. August 13. Belton. August 15, 1917.

554. *Zonotrichia leucophrys leucophrys*—White-crowned Sparrow. Valley east of Divide. July, 1915, August, 1917.
- 560a. *Spizella passerina arizonæ*—Western Chipping Sparrow. Below Squaw Mountain. July 19, 1915.
- 567f. *Junco hiemalis montanus*—Montana Junco. St. Marys Lake. July 21, 1915, August 9, 1917.
- 581b. *Melospiza melodia montana*—Mountain Song Sparrow. Below Squaw Mountain. July 19, 1915.
596. *Zamelodia melanocephala*—Black-headed Grosbeak. On Mt. Henry Trail. July 19, 1915.
607. *Piranga ludoviciana*—Western Tanager. At St. Marys Camp. August 9, 1917.
615. *Tachycineta thalassina lepida*—Northern Violet-green Swallow. St. Marys Lake. August 10, 1917.
619. *Bombycilla cedrorum*—Cedar Waxwing. North of St. Marys Lake. August 10, 1917.
652. *Dendroica æstiva æstiva*—Yellow Warbler. Foot of St. Marys Lake. August 10, 1917.
- 683a. *Icteria virens longicauda*—Long-tailed Chat. Cut Bank Valley. July 20, 1915. August 8, 1917. McDonald Valley. August 13, 1917.
697. *Anthus rubescens*—Pipit. Granite Park and McDonald Valley. August 13-15, 1917.
701. *Cinclus mexicanus unicolor*—Dipper. Trick Falls. July, 1915. Sun Camp and Many Glacier. August, 1917.
715. *Salpinctus obsoletus obsoletus*—Rock Wren. Granite Park. August 13, 1917.
- 756a. *Hylocichla fuscescens salicicola*—Willow Thrush. Near Glacier Park Hotel. August 7, 1917.
- 759a. *Hylocichla guttata auduboni*—Audubon's Hermit Thrush. Below Squaw Mountain. August 7, 1917.
- 761a. *Planesticus migratorius propinquus*. Western Robin. All the valleys.
768. *Sialia currucoides*—Mountain Bluebird. Near Glacier Park Hotel, at St. Marys Lake, and at Belton. August, 1917.

BIRDS ABOUT OUR LIGHTHOUSE.

JOHN WILLIAMS, ST. MARKS, FLORIDA.

From September 22 to October 5, 1917, was spent as substitute keeper at the lighthouse on the Gulf coast at the mouth of the St. Marks River, directly south of Tallahassee, and an attempt at a census of bird life was made during that period.